

The Status of the Claims

Claims 1-20 (Cancelled).

21. (Previously presented) A multiple channel system for a twisted pair telephone wire local loop system, comprising:

a subscriber gateway system having a first transceiver coupled to the twisted pair telephone wire, the first transceiver to send and receive via multiple independent channels;

a second transceiver at a central office coupled to the twisted pair telephone wire, the second transceiver to send and receive via the multiple independent channels; and

a plurality of digital filters, operatively coupled to the first and second transceivers, to convey a signal via an available frequency band associated with the multiple independent channels.

22. (Previously presented) A multiple channel system as defined in claim 21, further comprising a digital subscriber line access multiplexer coupled to an output of the second transceiver.

23. (Cancelled).

24. (Previously presented) A multiple channel system as defined in claim 21, wherein each of the plurality of digital filters has an output, and wherein each of the outputs is to be summed by a summer.

25. (Previously presented) A multiple channel system as defined in claim 21, further comprising a plurality of digital demodulators and a plurality of digital modulators coupled to the digital filters.

26. (Cancelled).

27. (Withdrawn) A method of operating a bandwidth allocation system for a twisted pair telephone wire local loop system, comprising:

- receiving a bandwidth allocation request at an office controller;
- determining if a frequency band is available on a selected twisted pair telephone wire;
- when the frequency band is available, determining a filter scheme and a frequency translation scheme to convey a signal via the available frequency band;
- transmitting the filter scheme and the frequency translation scheme to a subscriber controller; and
- sending a bandwidth allocation available message via the office controller.

28. (Cancelled).

29. (Withdrawn) A bandwidth allocation system for a twisted pair telephone wire local loop system, comprising:

a subscriber digital filter system coupled to the twisted pair telephone wire;
a subscriber controller to send a control signal to the subscriber digital filter system;
an office digital filter system coupled to the twisted pair telephone wire; and
an office controller to send a control signal to the office digital filter system to cause the digital filter system to convey a signal via an available frequency band.

30. (Cancelled).

31. (Cancelled).

32. (Withdrawn) A bandwidth allocation system as defined in claim 29, further comprising a subscriber transceiver coupled to the subscriber controller and the subscriber filter system.

33. (Withdrawn) A bandwidth allocation system as defined in claim 29, further comprising a splitter coupled to the twisted pair telephone wire and having a low pass output coupled to a plain old telephone system telephone and a high pass output coupled to the subscriber digital filter system.

34. (Withdrawn) A bandwidth allocation system as defined in claim 29, wherein the office controller is to receive a bandwidth allocation request and to calculate digital coefficients used to program a digital filter to enable the bandwidth allocation request.

35. (Withdrawn) A bandwidth allocation system as defined in claim 34, wherein the office controller is to transmit the digital filter coefficients to the office digital filter system.

36. (Withdrawn) A bandwidth allocation system as defined in claim 34, further comprising a control channel to convey control information between the subscriber controller and the office controller.

37. (Withdrawn) A bandwidth allocation system as defined in claim 36, wherein the office controller is to transmit the digital filter coefficients to the subscriber controller via the control channel.

38. (Previously presented) A multiple channel system as defined in claim 21, wherein the first transceiver in the subscriber gateway is to transmit a plurality of frequency division multiplexed signals.

39. (Previously presented) A multiple channel system as defined in claim 21, wherein the first transceiver in the subscriber gateway is to transmit a plurality of time division multiplexed signals.

40. (Previously presented) A multiple channel system as defined in claim 21, wherein the first transceiver in the subscriber gateway is to transmit a plurality of code division multiplexed signals.

41. (Previously presented) A multiple channel system as defined in claim 21, further comprising a local circuit switch coupled to an output of the second transceiver.

42. (Withdrawn) A method as defined in claim 27, further comprising sending a bandwidth allocation available message via the office controller.